Section 2.4 Noise

Data Adequacy Deficiency – Provide a list of the major noise sources of the project, including the range of noise levels and the tonal and frequency characteristics of the noise emitted. Include gas compressors, if any.

Data Adequacy Response – Combined cycle plants have several components that can produce tones. These include the cooling tower circulating water pumps, boiler feed pumps, condensate pumps and gas metering station. At the nearest receptor, these tones may be heard at night when the natural environment becomes quieter.

Field measurements of comparable major equipment are given in the following table. These levels were recorded near standard equipment without any unusual noise control measures applied. The actual values for the equipment within the Cosumnes Power Plant facility will in many cases be lower after necessary noise controls or enclosures are added. The gas compressors will be placed inside an acoustically treated building.

Typical Far Field Sound Pressure Levels at 400 feet from Standard Unattenuated Equipment

	Octave Band Center Frequency, Hz									
Plant Component	**31.5**	**63**	**125**	**250**	**500**	**1k**	**2k**	**4k**	**8k**	**dBA**
Combustion Turbine Encl.	50	53	50	46	44	42	52	52	34	57
CTG Inlet Duct	64	63	52	58	51	48	39	34	27	54
HRSG Inlet Duct	69	69	63	56	54	53	49	55	43	60
Boiler Feed Pump	61	54	55	55	55	58	55	51	45	61
Steam Turbine & STG Condenser	59	62	62	59	56	55	57	54	47	62
Main CTG/STG Transformers	49	55	57	52	52	46	41	36	29	52
Circulating Water Pump	39	36	37	33	34	37	37	30	21	42
Condensate Pump	---	48	47	45	46	43	43	44	45	51
Cooling Tower Air Inlet	74	74	67	60	56	55	56	52	42	62